

REMARKS/ARGUMENTS

I. STATUS OF THE PENDING CLAIMS

Upon entry of this amendment, claims 13-32 are pending in the application, all rejected. Claims 13, 17, 19-23 and 27-32 are amended to more particularly point out the claimed subject matter.

Claims 13-14, 17-20, 23-24, 26-29 and 31-32 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 6,473,788 to Kim et al. (“Kim”). Claims 21-22 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Kim. Claims 15, 16, 25 and 30 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Kim in view of U.S. Patent No. 6,658,167 to Lee et al. (“Lee”).

II. SUMMARY OF PROSECUTION HISTORY

Prior to the mailing of the Office Action dated January 10, 2007, the present application was the subject of an appeal to the Board of Patent Appeals and Interferences (“Board”). On September 28, 2006, arising as a result of a clerical error in a serial number, an RCE in an unrelated application also assigned to Siemens AG and identifying an inventor having an identical surname to the inventor of the present application, was erroneously entered by the U.S. Patent and Trademark Office in the above-identified application. Entry of this RCE had the effect of removing the application from appeal and reopening prosecution. In addition, by issuing a new Office Action on January 10, 2007 with a newly cited reference (e.g., Kim), the art forming the basis for the rejection on appeal (i.e., U.S. Patent No. 5,805,442 to Crater et al. (“Crater”)) is no longer asserted by the Examiner.

On February 15, 2007, attorneys for Applicant spoke with the Examiner about the error in an attempt to achieve a resolution. The Examiner suggested that Applicant consider filing a petition to withdraw the RCE and thereby return the application to the appeal process. As an alternative to filing a petition to withdraw the RCE, the attorneys for Applicant and the Examiner discussed the possibility of interviewing the case to

consider whether an amendment to the claims would overcome the rejection based on Kim.

On April 30, 2007, Applicant submitted a communication to the Examiner in advance of an interview, including a proposed claim amendment for purposes of discussion only. During the interview with the Examiner, held on May 1, 2007, Applicant obtained confirmation that Crater had, in fact, been withdrawn as a reference against the application. During the interview, the proposed claim amendment was also discussed and the Examiner recommended filing the amendment with a Rule 132 declaration to explain the technical subject matter of the application and point out its differences with the technical subject matter of the art of record.

Applicant now submits this amendment and the attached Rule 132 declarations and accompanying exhibits to more particularly point out that the scope of the claims of the above-referenced application lies within the field of “automation-drive technology” (i.e., “automation and drive technology,” which are interchangeable terms). Further, as explained below, Kim does not anticipate the present application at least in part because Kim does not relate to automation and drive technology. Applicant also submits an RCE to ensure that the error described above will not result in any procedural gaps.

III. REJECTIONS UNDER 35 U.S.C. § 102(b)

Claims 13-14, 17-20, 23-24, 26-29 and 31-32 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Kim.

A rejection of a patent claim under 35 U.S.C. § 102(b) as anticipated places on the Examiner the burden of proving that each element of the invention as claimed is identically disclosed by the applied reference. Because application of the Kim reference against the pending claims fails to carry this burden, Applicant traverses this rejection.

Purportedly, Kim relates to a system for remotely servicing a copier over a network from a workstation. Nothing in Kim discloses communications data transmitted from an automation-drive device to a data processing apparatus wherein the communications data comprises *both* (i) operating dialogs for the operation of the

automation-drive device and for communication with the browser in the data processing apparatus *and* (ii) device information for service and support of the automation-drive device over the automation-drive technology data network. At most, Kim merely relates to the transmission of “servicing information” from a copier to a workstation so that a technician at the workstation may review the information, diagnose a problem and, if necessary, execute an appropriate function to resolve any detected problems.

Significantly, nothing in Kim discloses *automation-drive devices* or *automation-drive technology data networks*, as claimed in the present application. As amended, the claims of the above-referenced application more particularly point out that their scope lies within the field of *automation-drive technology*. Kim, therefore, cannot anticipate the claims of the present application because Kim merely relates to network peripheral device technology, an area of technology separate and distinct from the field of *automation-drive technology*.

In support of this amendment, Applicant submits the attached Rule 132 declarations to help explain how one of ordinary skill in the art would interpret automation-drive technology and devices, and to provide documentary evidence that the automation and drive technology of the claimed invention, which applies to an industrial, or factory, setting, differs from the mere automatic, or automated, network office equipment of Kim.

Traditionally, the field of automation and drive technology, or automation-drive technology, relates to a specific technology used in creating devices that automate in a factory, or industrial, setting. (Schmitt Decl. ¶ 6)¹ Automation-drive technology does not relate to mere automatic, or automated, network office equipment such as printers and copiers. (*Id.*) Specifically, “automation” technology uses control systems to control industrial machinery and processes to replace human operators. (*Id.* ¶ 6, Ex. 1) Automation-drive technology uses programmable logic controllers (“PLCs”) “to synchronize the flow of inputs from (physical) sensors and events with the flow of outputs to actuators and events. This leads to precisely controlled actions that permit a

¹ Citations to “Schmitt Decl.” are to the accompanying Declaration Under 37 C.F.R. § 1.132 of Joachim Schmitt and exhibits thereto, which are being filed herewith.

tight control of almost any industrial process.” (*Id.*) In addition, human-machine interfaces (“HMI”) or computer-human interfaces (“CHI”) are usually employed to communicate with PLCs and other computers, such as entering and monitoring temperatures or pressures for further automated control or emergency response. (*Id.*)

With respect to manufacturing companies, the purpose of automation has shifted from increasing productivity and reducing costs to increasing quality and flexibility in the manufacturing process. (*Id.*) Indeed, hazardous operations, such as oil refining, the manufacturing of industrial chemicals and all forms of metal working are particularly suitable for automation. (*Id.*) Flexibility and convertibility in the manufacturing process is another benefit of automation in that it allows manufacturers to easily switch from manufacturing one product to manufacturing a different product without having to completely rebuild their production lines. (*Id.*)

Automation engineering has been described as “the backbone of industrial production,” making factories safer and more productive and having a significant impact on “the most diverse industrial processes and technical systems.” (*Id.* ¶ 6, Ex. 2) Exhibit 2 of the Schmitt declaration describes the integration of automation engineering and drives technology in the context of the automation of machinery and manufacturing, and process automation in a factory setting. (*Id.*) For example, after PLCs and intelligent drives on a system could be programmed from a programming device over one and the same bus, engineering tools for drives became integral components of automation environments. (*Id.*) One notable trend in drives engineering includes “[t]he emergence of mechatronic systems in which mechanical components, such as line shafts, gears, couplings and cam disks, are replaced by microelectronics and software.” Automation engineering responses to this and other trends in drives engineering included “Component Based Automation that benefited modularly designed machines and plants,” “[t]he range of new motion control solutions for machines,” and “[t]he addition to Ethernet of real-time solutions suitable for drives.” (*Id.*)

The principle of modularization, which had long been practiced in mechanical equipment manufacture and plant engineering, had, with the advance of mechatronics, started to attract attention in centralized factory automation, such as through a central

programmable controller. (*Id.*) This required that intelligent devices and modules from different manufacturers could be combined within a single factory automation environment. (*Id.*) In this context, “module” refers to factory or machine sections provided with the relevant automation functions by the mechanical equipment manufacturer or factory builder before shipping. (*Id.*)

Various figures included in Exhibit 2 illustrate the application of automation-drive technology to process automation, factory/manufacturing automation and machine automation, including application of the component-based automation modularization concept discussed above extended to automation engineering in an automobile factory production line. (*Id.*)

Further examples of automation-drive technology include “isochronous realtime” controllers that allow for motion control of drive axes over a bus in a mechanical equipment manufacturing environment. (*Id.*) In addition, Exhibit 1 of the Carnaval declaration describes the use of automation-drive systems, by a third-party entity, independent of the assignee of the above-referenced application, to increase the production and quality of pulp and paper industrial processes and machines. (Carnaval Decl. Ex. 1)²

The foregoing factual information embodied in the attached declarations and accompanying exhibits establishes that one of ordinary skill in the art would understand “automation-drive” or “automation and drive” technology to relate to a specific technology used in creating devices that automate in a factory, or industrial, setting and not to network office equipment such as printers and copiers. Because Kim relates only to network peripheral devices used in an office environment, and all pending claims of the present invention, as amended, are specifically directed to automation-drive devices, or automation and drive technology, Kim does not teach or suggest each and every limitation of the pending claims.

For at least the foregoing reasons, claims 13-32 are respectfully submitted to be patentable over Kim.

² Citations to “Carnaval Decl.” are to the accompanying Declaration Under 37 C.F.R. § 1.132 of Christopher Carnaval and exhibits thereto, which are being filed herewith.

IV. REJECTIONS UNDER 35 USC § 103(a)

Claims 21-22 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Kim. Claims 15, 16, 25 and 30 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Kim in view of Lee.

Because each of claims 15, 16, 21, 22, 25 and 30 depend from independent claims rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Kim, claims 15, 16, 21, 22, 25 and 30 are respectfully submitted to be patentable over the art of record for at least those reasons argued above. Particularly, all pending claims include limitations directed to the field of automation and drive technology. Neither Kim nor Lee relate to this field of technology; thus, all pending claims of the present application are patentable over Kim, whether alone or in combination with Lee.

CONCLUSION

Claims 13-32 are pending in the application. Applicant submits that all of these pending claims, for the reasons set forth above, recite patentable subject matter and are in condition for allowance. Reconsideration and allowance are therefore respectfully requested.

The Commissioner is hereby authorized to charge the fee for a three-month extension, as well as any additional required fee, to Deposit Account No. 23-1703.

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Respectfully submitted,

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